Rheumatic mitral stenosis simulating double-orifice mitral valve

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DESCRIPTION

A 46-year-old woman presented to us with symptoms of breathlessness New York Heart Association class II for 6 months on and off with a history of rheumatic fever in childhood. She was diagnosed in the periphery as having rheumatic heart disease for 20 years. The patient was on regular injectable penicillin prophylaxis (injection penicillin 1.2 million units every 21st day), β -blockers with intermittent diuretics. Cardiac examination revealed low pitched mid-diastolic rumble grade III/VI at apex with normal S1.

Twelve-lead ECG showed atrial fibrillation with controlled ventricular rate. Echocardiogram revealed moderate mitral stenosis with severe subvalvular disease. Severe subvalvular fusion created double orifice appearance (figures 1 and 2). The combined mitral valve area of two orifices was approximately 1.5 cm^2 (figure 3), gradient was only 8/5 mm Hg (figure 4). This valve was unsuitable for percutaneous valvotomy due to severe subvalvular

Figure 3 Modified short axis view showing mitral valve area.

Figure 1 Modified short axis view showing two mitral orifices.

Figure 2 Modified short axis view showing two mitral orifices (in different angulation).

Figure 4 Apical four-chamber view with calculation of gradient across mitral valve.

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Video 1 Parasternal long axis view showing subvalvular disease.

Video 4 Apical 4 chamber view showing subvalvular orifice.

Learning points

- ▶ Rheumatic mitral stenosis can simulate double-orifice mitral valve in presence of severe subvalvular fusion.
- ▶ Meticulous echocardiographic examination can differentiate between two entities by taking different views and also reduce the financial burden for the patient for costlier investigations like 3 dimensional echocardiogram.
- ▶ Parasternal short axis view taken alone can be quite confusing.

Video 2 Parasternal short axis view showing valvular & subvalvular orifice.

Video 3 Parasternal short axis view with colour Doppler showing 2 jets of forward flow through mitral valve (1 from valvular orifice and other from subvalvular orifice).

Contributors All authors were involved in the patient care and the manuscript writing.

Competing interests None.

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